respectfully submits that claims 1-7 are now in a condition for allowance along with the specification.

Response to Specification Objection

Applicant has submitted a rewritten abstract in response to the objection of the abstract by the Examiner. Applicant's intent is for the terms in the new abstract to be the same as the replaced abstract with the only change in meaning being the inclusion of "a single image-capturing device" to reflect the amendments made in the independent claims.

Response to 35 U.S.C. 112 Rejections

The Examiner rejected claims 2 under 35 U.S.C. §112, second paragraph, as being indefinite for "the image-capturing region" having no clear antecedent basis. Applicant has amended claim 2 to correct the antecedent basis. Applicant respectfully submits that the 25 U.S.C. 112 Rejection has been appropriately addressed and that claim 2 is in condition for allowance.

Response to 35 U.S.C. 102(e) Rejection

Claims 1 and 5 were rejected under 35 U.S.C. §102(e) as being anticipated by Sekine et al (US 5,907,434), hereafter referred to as the '434 patent. Applicant has amended claim 1 to contain the element of a single image-capturing device. The '434 patent describes two image-capturing device. Specifically, the '434 patent recites: "In the high-definition photographing mode, the beam 102 is split into the two beams 103, 104 to form the respective images on the two CCDs 121, 122, thereby obtaining two electronic video signals", (The '434 Patent, col. 8, lines 44-47). Applicant is only claiming a single image-capturing device. Thus the '434 patent fails to describe or teach all elements of Applicant's amended independent claim 1.

Therefore, amended independent claim 1 is in condition for allowance and claims 3-6 that depend from amended independent claim 1 are also in condition for allowance.

Response to 35 U.S.C 103 Rejections

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

The Examiner rejected claims 2-4, 6 and 7 under 35 U.S.C. 103(a) as being unpatentable over Sekine et al (the '434 patent) as applied to claims 1 and 5, and further in view of Ishihara (US 5,737,084), hereafter the '084 patent. Further, the Examiner rejected claims 6 and 7 as being unpatentable over the '434 patent in view of Tabata et al (US 6,177,952 B1), hereafter the '952 patent and claim 2 as being unpatentable over the '434 patent in view of the '084 patent and '952 patent.

Applicant has amended independent claim 2 and 7 to contain "a single image-capturing device" limitation. As explained in the §102(e) response section above, the '434 fails to describe or teach a single image-capturing device, rather the '434 patent describes two CCDs. Therefore, the '434 patent fails to describe all of Applicant's claim limitations. Similarly, when the '434 patent is combined with the '084 patent and/or the '952 patent they do not teach or describe all of

Applicant's amended claim limitations. Furthermore, claims 3-6 depend from allowable amended independent claim 1 and are also allowable for that reason alone.

Therefore claims 2-4, 6 and 7 are in condition for allowance.

Conclusion

In view of the foregoing discussion and analysis, Applicant respectfully submits that claims 1-7 as now presented, are in a condition for allowance, which action is earnestly solicited.

Respectfully submitted,
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CLEAN COPY OF THE CLAIMS

SUB D1

1(Amended). A three-dimensional image-capturing apparatus comprising:

a single image-capturing device having a plurality of image capturing regions; and

a plurality of optical systems for forming images of a subject in the image-capturing regions, the optical systems including a plurality of reflection means for reflecting rays from said subject a number of times, and at least a lens provided to be closer to said single image-capturing device than the closet reflection means to said subject among the reflection means;

wherein the reflection means and the lens are used to form, in the image-capturing regions, separate images of said subject which are captured from different viewpoints having a distance therebetween.

B2 Cont

SUB C1

2(Amended). A three-dimensional image-capturing apparatus comprising:

a single image-capturing device;

a plurality of imaging-side reflection means having reflectors provided to be obliquely outward for a plurality of different portions of an image-capturing region of said single image-capturing device;

a plurality of subject-side reflection means having reflectors provided, for the imaging-side reflection means, outer from the imaging side reflection means so as to be oblique with respect to a subject, the subject-side reflection means reflecting rays from said subject to the corresponding imaging-side reflection means;

a plurality of lenses or lens units provided to be closer to said single image-capturing device than the subject-side reflection means in optical paths formed from said subject to the different portions of the image-capturing region of said single image-capturing device so that

rays from said subject to the different portions of the image-capturing region of said single image-capturing device so that rays from said subject are reflected by the imaging-side reflection means, the lenses or lens units forming a plurality of images of said subject which have parallax; and

a plurality of diaphragms in which when each optical path has a lens, the diaphragms are provided to be closer to said subject than the lens and in which when each optical path has a lens unit, the diaphragms are provided to be closer to said subject than a lens of the lens unit.

7(Amended). A stereo-camera recording/reproducing system comprising:

a three-dimensional image-capturing apparatus comprising single image-capturing device having a plurality of image-capturing regions and a plurality of optical systems for forming images of a subject in the image-capturing regions;

a timing generator for driving said three-dimensional image-capturing apparatus so as to output the images formed in the image-capturing regions in the form of a single video signal;

a driver;

a camera signal processor for implementing camera signal processing on the single video signal;

a signal recorder for recording, on a single recording medium, the processed video signal output from said camera signal process;

a single reproducer for reproducing the video signal recorded on the recording medium;

a video separating circuit for separating the reproduced video signal from the reproducer into signals corresponding to the image-capturing regions; and

display apparatus for displaying the signals corresponding to the image-capturing regions, which are output from said video separating circuit;

wherein the optical systems include a plurality of reflection means for reflecting rays from said subject a number of times and at least a lens provided to be closer to said image capturing device than the reflection means closet to said subject, and

wherein the reflection means and the lens are used to form, in the image-capturing regions, separate images of said subject which are captured from different viewpoints having a distance therebetween.